

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A game device that reads from a storage means, prior to image processing, background data required in games for displaying a moving object within a virtual three-dimensional space together with a background, comprising:

pre-reading means for pre-reading said background data from said storage means by establishing an area for pre-reading which includes: setting a predetermined angle-of-visibility based on a direction of the moving object, setting a limit-line of a visual field at a predetermined distance towards a front of the visual field, and setting a pre-reading start line at a predetermined distance beyond a front of the limit-line of the visual field that moves in the direction of the moving object when viewed from the moving object,

wherein said storage means stores said background data by dividing said background data into a plurality of areas in advance;

said pre-reading means comprising judging means for judging which of said areas said pre-reading start line is crossing to determine a specific area from among the plurality of areas, and reading means for reading the background data of the area judged as being crossed with said pre-reading start line by the judging means,

wherein said plurality of areas are respectively stored in said storage means by dividing the content of background data per type;

said game device further comprising a work memory including a plurality of memory blocks each set at a same memory capacity,

wherein said reading means includes means for storing the background data of the crossed area in an integral number "n" of said memory blocks in said work memory in accordance with the amount of the background data to be stored, and

wherein said reading means includes means for judging whether one or more of said memory blocks of said work memory are a vacant space or not, and means for successively storing the background data of said crossed area in said integral number "n" of said memory blocks when said integral number of said memory blocks are judged as vacant space and of sufficient capacity to store the background data;

said game device further comprising counting means for detecting whether said moving object exists within said areas corresponding to memory blocks storing background data, or an area that exists within the visual field, in said work memory, and counting said moving object or visual field area periodically,

wherein said reading means includes means for determining the memory block to store said background data based on a count value determined for each of said memory blocks by said counting means when it is judged that there is no vacant space in said work memory.

2 - 5. (Canceled)

6. (Previously Presented) A game device according to claim 1, wherein said reading means includes determining means for determining a plurality of

consecutive memory blocks when background data to be stored requires a plurality of memory blocks.

7. (Previously Presented) A game device according to claim 1, wherein said determining means is for determining a plurality of consecutive memory blocks representing a highest or lowest value by comparing said count values of said plurality of consecutive memory blocks.

8. (Previously Presented) A game device according to claim 1, wherein said determining means is for determining a plurality of consecutive memory blocks representing a highest or lowest value by computing average values for said plurality of consecutive memory blocks.

9. (Previously Presented) A game device according to claim 1, wherein said moving object is a vehicle that moves within said virtual three-dimensional space.

10. (Previously Presented) A game device according to claim 1, wherein said background data is landform data prepared to enable a vehicle to travel in arbitrary directions on land represented by the background data.

11. (Currently Amended) A data processing method for a game device comprising:

reading background data required for a game that displays a moving object within virtual three-dimensional space together with a background in working memory from memorizing means prior to image processing, wherein said background data is pre-read from a recording medium by establishing an area for pre-reading which includes: setting a predetermined angle-of-visibility based on a direction of the moving object, setting a limit-line of a visual field at a predetermined distance towards a front of the visual field, and setting a pre-reading start line at a predetermined distance beyond a front of the limit-line of the visual field that moves in the direction of the moving object when viewed from the moving object;

said recording medium storing said background data by dividing said background data into a plurality of areas in advance, said plurality of areas being respectively stored in said recording medium by dividing the content of background data per type and approximately the same size;

judging which of said areas said pre-reading start line is crossing to determine a specific area from among the plurality of areas, and reading the background data of the area judged as being crossed with said pre-reading start line;

storing background data of the crossed area in an integral number "n" of memory blocks in said working memory in accordance with an amount of the background data to be stored, said working memory including a plurality of memory blocks each set at a same memory capacity;

judging whether one or more memory blocks of said working memory are a vacant space or not, and successively storing the background data of said crossed area

in said integral number "n" of said memory blocks judged as vacant space and of sufficient capacity to store the background data;

detecting whether said moving object exists within any of said plurality of areas corresponding to memory blocks storing background data, or an area that exists within the visual field, in said working memory, and counting said moving object or area periodically; and

determining the memory block to store said read background data based on a count value determined for each of said memory blocks by said counting when it is judged that there is no vacant space in said working memory.

12. (Previously Presented) An information recording medium having recorded therein said background data and programs for executing the respective means according to claim 1.